

McDowell Creek Thinning Timber Sale

Final Decision and Decision Rationale
January 2008

United States Department of the Interior
Bureau of Land Management
Oregon State Office
Salem District
Cascades Resource Area

T. 12 S., R. 1 E. Sections 21, 25 and 27; WM.
Environmental Assessment Number (EA) # OR080-06-06 (Beeline/McDowell Creek Thinning EA)
Hamilton Creek and South Santiam River 5th field Watershed.
Linn County, Oregon

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BLM/OR/WA/PT-07/022+1792

I. Introduction

The Bureau of Land Management (BLM) has conducted an environmental analysis for the McDowell Creek Thinning Project. This analysis is documented in the following Environmental Assessment (EA) and associated project files:

- The McDowell Creek Thinning Project is documented in the *Beeline/McDowell Creek Thinning Environmental Assessment* (Beeline/McDowell Creek Thinning EA, # OR080-06-06).

This timber sale is a proposal to thin approximately 439 acres of 45-75 year old mixed conifer stands within the General Forest Management Area (GFMA) portion of the Matrix Land Use Allocation (LUA), and the Riparian Reserve (RR) LUA. See Table 3 in section **VIII**. of this Decision Rationale (DR).

A Finding of No Significant Impact (FONSI) for EA # OR080-06-06 was signed on March 20, 2007. The EA and FONSI document was then made available for public review.

II. Decision

I have decided to implement a timber sale consisting of units 21A, 21B, 21C, 25A, 25B, 25C, 25D, 27A, 27B and 27C of the McDowell Creek Project Area proposed action as described in the Beeline/McDowell Creek Environmental Assessment (EA # OR080-06-06) (EA pp. 20, 28-59) with modifications described in this Decision Rationale. The timber sale will be called McDowell Creek Thinning.

This decision is based on site-specific analyses in the EA described above, the supporting project record, public comment, and management recommendations contained in the Hamilton Creek Watershed Analysis [March, 1995], as well as the management direction contained in the Salem District Resource Management Plan (May 1995), which are incorporated by reference in the EA. The following is a summary of the decision, hereafter referred to as the “selected action”. DR Table 3 displays the crossover between units in the proposed action and the selected action. The BLM proposes to:

Timber Harvest

Harvest approximately 439 acres (DR Table 3) within T. 12 S. R.1 E. Sections 21, 25 and 27, WM. This harvest includes:

- Thinning 438 acres within the following Land Use Allocations (LUAs)
 - 295 acres within the General Forest Management Area (GFMA) portion of the Matrix LUA (Upland Thinning in DR Table 3),
 - 143 acres within the Riparian Reserve LUA (Riparian Thinning in DR Table 3);
- Clearing 1 acre of vegetation within the road right-of-way accessing units 4, 6 and 8.

Logging Systems

- Harvest approximately 380 acres (Units 1-10) plus 1 acre Right-of-Way using ground-based yarding.
- Harvest approximately 11 acres (Units 7, 8 & 10) using a cable winching system.
- Harvest approximately 48 acres (Units 1, 4, 8 & 10) using skyline yarding.

Units

On Units 1-10, (T. 12 S., R. 1 E., Sections 21, 25 and 27) EA proposed thinning actions were reduced by approximately 24% to the current acreage within the selected action. This was due to final harvest unit boundary locations and more precise mapping within the proposed project area.

Road Work and Haul:

- Construct approximately 0.46 miles of new road to accommodate skyline logging equipment and log transport. New construction will be blocked (typically with trench and berm barricade) and stabilized after logging operations.
- Renovate and maintain approximately 10.42 miles of existing road. Renovation may include blading and shaping of roadway and ditches, small slide/slump repairs, clearing brush from cut and fill slopes, cleaning or replacing culverts, and applying rock surfacing material to depleted surfaces.
- Improve approximately 0.27 mile of BLM Road 12S-1E-36.1 to the minimum standard necessary for hauling, including minimal spot rocking, blading, and brushing, curve alignment, and tree removal. After thinning and hauling is completed, this section of road will be blocked (typically with trench and berm barricade) and stabilized after logging operations.
- Stabilize roads 12-1E-15, 12-1E-21.1, 12-1E-21.4, 12-1E-25, 12-1E-25.1, 12-1E-25.3, 12-1E-27, 12-1E-34, 12-1E-35, 12-1E-36, 12-1E-36.1, and 12-2E-30.4, approximately 5 miles of road. Stabilizing entails installing water-bars or other shaping of roads for drainage, placing woody debris, and/or seeding. These roads are behind locked gates.
- Construct trench and berm road blocks on roads 12-1E-21.1, 12-1E-21.3, 12-1E-21.4, and 12-1E-34 after logging, blocking approximately 0.75 miles of road. These roads will be stabilized.
- Seed and fertilize and plant trees on approximately 1 acre of natural surface roads adjacent to harvest units.

New gates

- Install 1 gate at the start of segment D of the 12-1E-34 road, controlling access to approximately 1.5 miles of road.

Culverts

- Remove the existing log fill culvert on the 12-1E-25.3 road after the completion of logging operations to restore the natural drainage.
- Replace 310 linear feet of culvert material at intermittent stream crossings.

Fuels Treatments

- A total of 40 acres in units 1, 2 and 3 will have fuel treatment. The areas to be treated are located within the unit area, generally along roads and property lines. Approximately 12 acres will be hand piled, covered and burned, 28 acres will be mechanically treated. Based on site conditions after harvest, mechanical treatment may be either "mastication" (breaking slash into pieces generally less than one foot long) or machine pile, cover and burn.
- Within 30 feet of the edge of each landing all tops, broken pieces, limbs and debris over 1 inch and longer than 3 feet will be piled and covered. Piles will be 20 feet minimum distance from residual trees. Piles will be burned after thinning has occurred and fall rains have begun.

Other

After logging operations have been completed, access to skid trails would be blocked by leaving logging debris to prevent Off Highway Vehicles (OHVs) from driving on skid trails.

Design Features

Project Design Features to be implemented are described in section **X.** of this Decision Rationale, and will be included in the timber sale contract. These design features are first described in section 2.2.3 (pp. 21-24) of the Beeline/McDowell Creek Thinning EA (EA#OR080-06-06).

Table 1: Summary of the Selected Action

| Action | | | Units | Total |
|--------------------------|--|--|-----------|-------|
| Timber Harvest (Acres) | Commercial Thinning (See DR Table 3) | General Forest Management Area (GFMA) LUA (Matrix) | All | 295 |
| | | Riparian Reserve Land Use Allocation | All | 143 |
| | Road Right of way clearing | | 1,4,5,8,9 | 1 |
| | Total | | | 439 |
| Logging System (Acres) | Ground-Based | | All | 380 |
| | Cable Winch | | 7,8,10 | 11 |
| | Skyline | | 1,4,8,10 | 48 |
| | Helicopter | | N/A | 0 |
| Road Work | Road Access | New road construction ³ (miles) | | 0.46 |
| | | Road Improvement (miles) | | 0.27 |
| | | Road Renovation/ Road Maintenance ⁴ (miles) | | 10.42 |
| | | Culverts - Installation (Linear feet) | | |
| | | Culverts - Replacement (Linear feet) | | 310 |
| | | Gates Install (#) | 5 | 1 |
| | Road Decommissioning | Decommissioning/storm proofing (miles) | | 5 |
| | | Culvert Removal (#) | 10 | 1 |
| | | Trench and berm road blocks (#) | | 4 |
| Fuels Treatments (acres) | Pile Burning (hand pile and machine pile) | | 1,2,3 | 40 |
| | Potential Alternative Treatment – “Mastication” instead of machine pile and burn. (See description DR p. 4.) | | 1,2,3 | 28 |

III. Alternatives Considered

1. No Action - No timber harvest or connected actions would take place.
2. The Proposed Action: The McDowell Creek Thinning Project in the Beeline/McDowell Creek Thinning EA (EA# OR080-06-06) is a proposal to thin approximately 580 acres of mixed-conifer stands with an average age ranging from 45-75 years. Within the General Forest Management (GFMA) portion of the Matrix LUA, units would be thinned by removing suppressed, co-dominant, and occasional dominant trees (thinning from below), leaving residual overstory trees at a uniform stocking level. Generally, the largest trees would be left.

Within units in the Riparian Reserve LUAs, up to ten percent of the treatment area would be left in unthinned patches, small gaps (up to one acre in size, retaining up to 20 trees per acre) would be created in 5 – 15 percent of the treatment area (DR Table 3), and the remaining area would be thinned, generally leaving the largest trees.

Selected Action: Units from the McDowell Creek Project that are located in T. 12 S., R. 1 E., Sections 21, 25 and 27 have been selected to form the McDowell Creek Thinning Timber Sale. This timber sale is a proposal to thin approximately 439 acres of 45-75 year old mixed conifer stands. Thinning methods would remain as described in the proposed action paragraphs, above. The Selected Action implements the Proposed Action, with acreage reduction due to final boundary location and accurate mapping.

Table 2 of this Decision Rationale (DR Table 2) shows how the Selected Action meets the purpose and need of the project as compared to the no action and any other EA action alternatives. This table is a summary of the table found in section 3.4 (Table 14) of the Beeline/McDowell Creek Thinning EA.

Table 2: Comparison of the Alternatives with Regard to the Purpose of and Need for Action

| <i>Purpose and Need</i> | <i>No Action</i> | <i>Proposed Action and Selected Action</i> |
|---|--|--|
| Develop timber sales that can be successfully offered to the market place. | Does not fulfill. | Fulfills. |
| Achieve a desirable balance between wood volume production, quality of wood, and timber value at harvest (RMP p. D-3). | Partially fulfills. Partially meets wood volume production over course of rotation. Logs at end of rotation would be smaller diameter which generally reduces quality and value compared to thinned stands. | Fulfills. Maintains volume production over the course of the rotation. Promotes faster diameter growth so that logs at end of rotation would be larger diameter. |
| Maintain the health and growth of developing stands. | Does not fulfill. Stand health and tree growth rates would begin to decline if stands are not thinned. Competition would result in mortality of smaller trees and some co-dominant trees in the stands. | Fulfills. Stand health and tree growth rates would be maintained as trees are released from competition. |
| Retain elements that provide ecosystem diversity (snags, old growth trees, etc.) so that a healthy forest ecosystem can be maintained with habitat to support plant and animal populations (RMP p. 1, 20) | Partially fulfills. Retains existing elements, but does not enhance conditions to provide these elements for the future stand. | Fulfills. Retains the elements described under “no action” on untreated areas of the stands in the project areas and encourages development of larger diameter trees and more open stand conditions in treated areas. This adds an element of diversity to the landscape not provided on BLM lands as soon under the No Action alternative. |
| Increase height and diameter to develop future large coarse woody debris, snag habitat, in-stream large wood and other elements of late-successional forest habitat. (RMP p.1) | Fulfills. (EA section 3.2.1.2). Average tree size would continue to increase, but at a slower rate as competition for light and nutrients increases. | Fulfills. Would meet the Purpose and Need sooner (10-30 years) by concentrating stand growth on fewer stems. |
| Provide for structural and spatial stand diversity on a landscape level in the long term. | Fulfills by maintaining current trends that would develop diversity slowly. | Fulfills. Accelerates changes in some parts of some stands to develop more elements of diversity faster. |
| Provide appropriate access for timber harvest, silvicultural practices, and fire protection vehicles. | Partially fulfills. Roads would not be renovated or maintained for fire protection vehicles. | Fulfills. Would implement maintenance of feeder roads, allowing improved access for management activities. Would renovate and maintain roads. |

| <i>Purpose and Need</i> | <i>No Action</i> | <i>Proposed Action and Selected Action</i> |
|--|---|---|
| Reduce potential human sources of wildfire ignition by controlling access and treating fuels. | Partially fulfills. Existing gates and berms do not adequately control public motorized access in sections 21 and 27. Access to section 25 is adequately controlled. | Fulfills. New gate and berm would be installed that would control public motorized access to section 27. Access to Section 21 would remain unchanged. Access to section 25 is adequately controlled. Treatment of activity fuels near open roads in section 21 would reduce potential. |
| Reduce adverse environmental effects associated with identified existing roads within the project areas (RMP p. 11). | Does not fulfill. Roads not currently meeting ACS objectives would not be improved, decommissioned or closed and stabilized at this time. | Fulfills. Identified roads would be renovated or improved and maintained, closed and stabilized, or obliterated. |

IV. Decision Rationale

Considering public comment, the content of the Beeline/McDowell Creek Thinning EA and supporting project record, the management recommendations contained in the Hamilton Creek Watershed Analysis, and the management direction contained in the RMP, I have decided to implement the selected action as described in section **II** of this Decision Rationale. The following is my rationale for this decision.

1. No Action: This alternative was not selected because it does not meet the Purpose and Need directly, or delays the achievement of the Purpose and Need (Beeline/McDowell Creek Thinning EA section 1.2), as shown in Table 2 of this Decision Rationale.
2. The Proposed Action:
 - Beeline/McDowell Creek Thinning EA – Beeline Project Area: Units within the Lower Clackamas, Lower Molalla and Upper Molalla 5th field watersheds (Beeline/McDowell Creek Thinning EA p. 9) were not selected because I plan to implement them in the Beeline Thinning timber sale, which will be documented in the Beeline Thinning Timber Sale Decision Rationale.
 - McDowell Creek Thinning Project Area: All units proposed in the Hamilton Creek/South Santiam River 5th field watershed have been incorporated into the selected action (Beeline/McDowell Creek Thinning EA pp. 11, 16). Vegetative treatments have remained the same. However after further field work, acres have changed. (DR Table 3, p. 19).
3. Selected Action: The selected action implements the McDowell Creek Project described in the Beeline/McDowell Creek Thinning EA (EA# OR080-06-06). The Selected Action:
 - Meets the purpose and need of the project Beeline/McDowell Creek Thinning EA section 1.2, as shown in DR Table 2 (DR p.6).
 - Complies with the Salem District Record of Decision and Resource Management Plan, May 1995 (RMP) and related documents which direct and provide the legal framework for management of BLM lands within the Salem District (Beeline/McDowell Creek Thinning EA section 1.3, pp. 13-15, as modified by DR section **V**, pp. 8-15).
 - Is responsive to concerns for an economically efficient project.
 - Is responsive to public input (e.g. prescriptions to enhance structural diversity in the Riparian Reserve LUA).

- Decreases potential for human caused fire starts and improves fire suppression opportunities by treating slash along open roads and within Wildland Urban Interface boundaries and providing controlled access for fire suppression with gated roads.
- Incorporates new information on northern spotted owl (DR p.10).
- Would not contribute to the expansion of invasive/nonnative weed populations.
- Would not have significant impact on the affected elements of the environment (Beeline/McDowell Creek Thinning EA FONSI, section 3.1, Tables 8 and 9, pp. 26-27) beyond those already anticipated and addressed in the RMP EIS.
- Uses the minimum transportation system to facilitate implementation of the project.
- Would have no effects on ESA listed fish in Hamilton Creek, McDowell Creek and the South Santiam River.

V. Compliance with Direction

The analyses documented in the Beeline/McDowell Creek Thinning EA are site-specific and supplements analyses found in the *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*, September 1994 (RMP/FEIS). This project has been designed to conform to the *Salem District Record of Decision and Resource Management Plan*, May 1995 (RMP) and related documents which direct and provide the legal framework for management of BLM lands within the Salem District (Beeline/McDowell Creek Thinning EA pp.13-15). Compliance with the current direction for the Aquatic Conservation Strategy has been updated and is described in DR section V, p 8-15. All of these documents may be reviewed at the Cascades Resource Area office.

Survey and Manage Species Review

The Secretary of Interior removed the Survey & Manage (S&M) Mitigation Measure Standards and Guidelines from the bureau of Land Management's (BLM) Resource Management Plans in the area of the Northwest Forest Plan on June 25, 2007. However, the McDowell Creek Timber Sale was initiated and prepared in compliance with the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (January, 2001) (2001 ROD) , including any amendments or modifications in effect as of March 21, 2004.

The Bureau of Land Management (BLM) is aware of the August 1, 2005, U.S. District Court order in Northwest Ecosystem Alliance et al. v. Rey et al. which found portions of the *Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (January, 2004) (EIS) inadequate. Subsequently in that case, on January 9, 2006, the Court ordered:

- set aside the 2004 Record of Decision *To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern spotted Owl* (March, 2004) (2004 ROD) and
- reinstate the 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (January, 2001) (2001 ROD), including any amendments or modifications in effect as of March 21, 2004.

The BLM is also aware of the November 6, 2006, Ninth Circuit Court opinion in Klamath-Siskiyou Wildlands Center et al. v. Boody et al., No. 06-35214 (CV 03-3124, District of Oregon). The court held that the 2001 and 2003 Annual Species Reviews (ASRs) regarding the red tree vole are invalid under the Federal Land Policy and Management Act (FLPMA) and National Environmental Policy Act (NEPA) and concluded that the BLM's Cow Catcher and Cotton Snake timber sales violate federal law.

This court opinion is specifically directed toward the two sales challenged in this lawsuit. The BLM anticipates the case to be remanded to the District Court for an order granting relief in regard to those two sales. At this time, the ASR process itself has not been invalidated, nor have all the changes made by the 2001-2003 ASR processes been vacated or withdrawn, nor have species been reinstated to the Survey and Manage program, except for the red tree vole. The Court has not yet specified what relief, such as an injunction, will be ordered in regard to the Ninth Circuit Court opinion. Injunctions for NEPA violations are common but not automatic.

The Cascades Resource Area will reexamine individual project level NEPA documents (environmental assessments) in light of any pertinent court ordered remedy and will make revisions to such documents as necessary following issuance of the court's judgment. We have provided advance notice to potential purchasers informing them that the court's ruling may result in delays in award of the sale to the high bidder or suspensions of operations. Appropriate processes are in place to provide us the ability to delay award of timber sales or issue suspensions should they become necessary.

Red Tree Voles: No red tree vole surveys were required on the McDowell Creek Thinning project area due to lack of suitable habitat in these young (<80 years of age) stands. In Northwest Ecosystem Alliance et al. v. Rey et al the U.S. District Court modified its order on October 11, 2006, amending paragraph three of the January 9, 2006 injunction. This most recent order directs:

- "Defendants shall not authorize, allow, or permit to continue any logging or other ground-disturbing activities on projects to which the 2004 ROD applied unless such activities are in compliance with the 2001 ROD (as the 2001 ROD was amended or modified as of March 21, 2004), except that this order will not apply to:
- a. Thinning projects in stands younger than 80 years old;
 - b. Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
 - c. Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large wood, channel and floodplain reconstruction, or removal of channel diversions; and
 - d. The portions of project involving hazardous fuel treatments where prescribed fire is applied. Any portion of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and management requirements except for thinning of stands younger than 80 years old under subparagraph a. of this paragraph."

BLM has examined the objectives of the McDowell Creek Thinning timber sale as described in the *Beeline/McDowell Creek Thinning Environmental Assessment* (# OR080-06-06) and in this Decision Rationale (p. 6). The selected action meets Criterion a: Thinning projects in stands younger than 80 years old (DR Table 3).

No surveys for mollusk species are required for the McDowell Creek Thinning Project due to project location and lack of suitable habitat for Survey and Manage mollusk species (EA p. 46).

Northern Spotted Owl (NSO) Status Review:

The following information was considered in this decision: a/ *Scientific Evaluation of the Status of the Northern Spotted Owl* (Sustainable Ecosystems Institute, Courtney *et al.* 2004); b/ *Status and Trends in Demography of Northern Spotted Owls, 1985-2003* (Anthony *et al.* 2004); c/ *Northern Spotted Owl Five Year Review: Summary and Evaluation* (USFWS, November 2004); and *Northwest Forest Plan – The First Ten Years (1994-2003)*; d/ *Status and trend of northern spotted owl populations and habitat, PNW Station Edit Draft* (Lint, Technical Coordinator, 2005). Although the agencies anticipated a decline of NSO populations under land and resource management plans during the past decade, the reports identified greater than expected NSO population declines in Washington and northern portions of Oregon, and more stationary populations in southern Oregon and northern California.

The reports did not find a direct correlation between habitat conditions and changes in NSO populations, and they were inconclusive as to the cause of the declines. Lag effects from prior harvest of suitable habitat, competition with Barred Owls, and habitat loss due to wildfire were identified as current threats; West Nile Virus and Sudden Oak Death were identified as potential new threats. Complex interactions are likely among the various factors. This information has not been found to be in conflict with the NWFP or the RMP (*Evaluation of the Salem District Resource Management Plan Relative to Four Northern Spotted Owl Reports, September 6, 2005*).

Botanical Species Status Review:

A single population of *Pseudocypsellaria mallota*, a bureau Special Status (bureau assessment) lichen species was found on a single Douglas-fir tree in Unit 5. This tree is adjacent to the road and will be protected under terms of the timber sale contract. (EA p. 29)

Cimicifuga elata (tall bugbane), a Bureau Sensitive vascular plant was found adjacent to roads in Section 21. All known populations are outside of harvest unit boundaries and will not be affected by the Selected Action (EA p. 29).

Aquatic Conservation Strategy Update

On March 30, 2007, the District Court, Western District of Washington, ruled adverse to the US Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA-Fisheries) and USFS and BLM (Agencies) in *Pacific Coast Fed. of Fishermen's Assn. et al v. Natl. Marine Fisheries Service, et al and American Forest Resource Council*, Civ. No. 04-1299RSM (W.D. Wash)(PCFFA IV). Based on violations of the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA), the Court set aside:

1. the USFWS Biological Opinion (March 18, 2004),
2. the NOAA-Fisheries Biological Opinion for the ACS Amendment (March 19, 2004),
3. the ACS Amendment Final Supplemental Environmental Impact Statement (FSEIS) (October 2003), and
4. the ACS Amendment adopted by the Record of Decision dated March 22, 2004.

Previously, in *Pacific Coast Fed. Of Fishermen's Assn. v. Natl. Marine Fisheries Service*, 265 F.3d 1028 (9th Cir. 2001)(*PCFFA II*), the United States Court of Appeals for the Ninth Circuit ruled that because the evaluation of a project's consistency with the long-term, watershed level ACS objectives could overlook short-term, site-scale effects that could have serious consequences to a listed species, these short-term, site-scale effects must be considered.

The following paragraphs show how the McDowell thinning project meets the Aquatic Conservation Strategy in the context of PCFFA IV and PCFFA II.

Existing Watershed Condition

The McDowell thinning project area is in the South Santiam River -Hamilton Creek watershed which drains into the South Santiam River. Twenty-six percent of the watershed is managed by BLM, 70 % is private industrial forest, 3% is private agricultural / residential land, and 1% is managed by the state of Oregon (Hamilton Creek Watershed Analysis (WA) p. 16). Currently, approximately 6 percent of the federal ownership in all land allocations within Hamilton Creek appear to exhibit late-successional characteristics (WA p. 5). Most of the forest stands within the watershed are 35 to 74 year old. Less than 1 percent of the watershed is in old-growth stands over 200 years of age (WA p. 30).

Virtually all private forest lands within the WAA have been logged. Timber harvest on private lands in the area began in the 1920's and increased dramatically with modern logging methods and increased road building to supply wood products during World War II and the post war years. Today, supply and demand, as well as other economic factors, continue to be the dominant influences behind management of private industrial forest lands.

All but approximately 160 acres of BLM-administered lands in the Hamilton Creek WAA have been harvested in the past. BLM Forest Operations Inventory (FOI) records indicate that approximately 52 percent of BLM-administered lands in the Hamilton Creek WAA have received some degree of forest management within the past 25 years. Approximately 596 acres (13 percent) have been clearcut harvested, 172 acres (4 percent) have been commercially thinned, and 1,585 acres (35 percent) have been pre-commercially thinned (WA p. 17).

Of the 193 estimated stream miles in the landscape, 51 miles (26 percent) are managed by BLM. Approximately 56 percent of the BLM ownership in the Hamilton Creek Watershed falls within Riparian Reserves. Age class distribution within the Riparian Reserve buffers is similar to the age class distribution on BLM across the Watershed. Currently, about 6 percent of the Riparian Reserve buffers are in age classes over 80 years of age and approximate late successional forest conditions. The majority (60 percent) of the Riparian Reserve buffers are in closed sapling pole seral stage between 35 and 75 years of age. About 34 percent are in stands under 35 years of age. Hardwood forest types on both BLM and other ownerships comprise a much larger proportion of the streamside types than the average across the Watershed (WA p. 35).

Review of Aquatic Conservation Strategy Compliance:

I have reviewed this analysis and have determined that the project complies with the ACS on the project (site) scale. The following is an update of how this project complies with the four components of the Aquatic Conservation Strategy, originally documented in the EA, Table 13, p. 59. The project will comply with:

- ***Component 1 – Riparian Reserves:*** by maintaining canopy cover along all streams and the wetlands, which would protect stream bank stability and water temperature. For project units in all watersheds, Riparian Reserve boundaries are established consistent with direction from the *Salem District Resource Management Plan* (p. 10). Road and landing locations have been minimized in Riparian Reserves.
- ***Component 2 – Key Watershed:*** by establishing that the McDowell thinning project is not within a Key watershed.
- ***Component 3 – Watershed Analysis:*** The Hamilton Creek Watershed Analysis was completed in March 1995.

Recommendations from the WA for “Management Influences and Human Use) (pp. 66-68) include the following items that are relevant to the selected action:

- *Manage stands within the GFMA on a rotation to Culmination of Mean Annual Increment (CMAI).* Thinning in the GFMA (Matrix) portion of the thinning units is an intermediate step toward a rotation to CMAI. None of these stands will reach CMAI within two decades. This rotation is expected to maintain spatial diversity on a landscape level in the long term.
- *Commercial thinning is recommended to harvest expected mortality and to enhance stand quality for timber management objectives.* The stands to be thinned under the selected action are not specifically listed in the WA, but have been determined to be suitable for meeting these objectives. Thinning in the GFMA land use allocation is expected to result in healthy mid seral stage forest stands for at least the next two decades.
- *Utilizing fire for fuels management treatments generally limited to prescribed understory burning and pile burning in conjunction with commercial thinning.* Pile burning is included in the selected action. Understory burning (broadcast) was not proposed or selected. Mechanical fuels treatments (“mastication” or pile and burn) would be used for fuel treatments in selected areas adjacent to open roads and in the WUI. These treatments are expected to result in reduced hazard of wildfire.
- *Identify and replace underdesigned drainage structures that represent a high risk of adverse impacts to water quality and aquatic and riparian habitat conditions.* The project removes one of the two log fill culverts recommended for removal in the WA. This project will have short duration (one wet season), local (less than ¼ mile downstream) increases in turbidity that is not expected to impact fish populations or aquatic habitat and is expected to reduce the chance of future failure of this structure and restore the stream channel. Replacement of insufficient and failing culverts is expected to reduce the chance of future failure (EA pp. 40-41).
- *Develop a comprehensive transportation management plan to address access needs. Rehabilitate, close or obliterate roads as the opportunity is identified.* The transportation needs for the area affected by the selected action were analyzed. Roads were designated for renovation or improvement (rehabilitation) and/or closure in keeping with that analysis. The resulting road system is expected to be safe and stable and to maintain or improve water quality in the long term by repairing identified sources of sediment and replacing underdesigned drainage structures.
- **Component 4 – Watershed Restoration:** Thinning in the Riparian Reserve land use allocation would be expected to result in long-term restoration of large conifers and the potential for material that would contribute to in-stream habitat complexity in the long-term. Variable thinning with “clumps and gaps” in Riparian Reserves would further enhance terrestrial habitat complexity in the long and short term.

In addition I have reviewed this project against the ACS objectives at the project or site scale with the following results:

The no action alternative does not retard or prevent the attainment of ACS objectives 1-9 because this alternative will maintain current conditions.

The Selected Action does not retard or prevent the attainment of ACS objectives 1-9 for the reasons stated in the following paragraphs

- **ACS Objective (ACSO) 1 - Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted:** The Selected Action is unlikely to permanently alter the aquatic system either by affecting its physical integrity, water quality, sediment regime or stream-flow. The long term effects of the proposal may be slightly beneficial for the aquatic system as a result of increased wood recruitment and species and structural diversity in the riparian zone (EA pp. 6, 37).
- **ACSO 2 – Maintain and restore spatial and temporal connectivity within and between watersheds:** Implementation of the selected action will not eliminate connectivity between project units or adjacent untreated stands under BLM management (EA pp. 6-7, 48, 52). See ACSO1.
- **ACSO 3 - Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations:** Under the proposed action, with the exception of stream crossing repairs and removal of the existing log fill in section 25, there will be no direct alteration of any stream channel, wetland or pond morphological feature. In most of the project area yarding operations and equipment will be at least 20 feet from stream channels.

Road repair at stream crossings will result in small (limited to the road right-of-way), short term (1 year or less) alteration of channels. All effects will likely be within the range of effects disclosed in the RMP/FEIS (BLM, 1994).

Removal of the log fill in section 25 will initially disturb the channel in this location, and then restore the channel to a natural, stable form. Using the removed logs for bank stability and stream channel structure would enhance overall stability (EA p. 35).

Other than these effects, this proposal will be unlikely to alter the current condition of channels, wetlands and ponds in the project area: minimization of direct and indirect disturbances from the proposed action will likely protect the current channel morphology (EA p. 35). See ACSO 1.

- **ACSO 4 - Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems:** *Sediment:* Sediment transport and turbidity in this watershed may increase over the short term as a direct result of road repair and construction, culvert replacement, and log fill removal, together with hauling and yarding in and around riparian zones (EA pp. 35-36). Over the long-term (beyond two years), current conditions and trends in turbidity and sediment yield will be maintained under the selected action.

Temperature: The Oregon Department of Environmental Quality's (ODEQ) Willamette Total Maximum Daily Load (TMDL) has goals for the maintenance of and/or increase in effective shade adjacent to perennial streams. By retaining all vegetation in a Stream Protection Zone (SPZ) corresponding to the "primary shade zone" (about 60 feet, maximum) on all perennial streams and a SPZ of 25 feet on intermittent streams that do not flow during the hot summer months, this action will comply with these requirements (EA p. 36).

- **ACSO 5 - Maintain and restore the sediment regime under which aquatic ecosystems evolved:** Under the Selected Action, sediment transport and turbidity in this watershed may increase over the short term as a direct result of road repair and construction, culvert replacement and log fill removal, together with hauling and yarding in and around riparian zones. Over the long-term (beyond two years), current conditions and trends in turbidity and sediment yield will be maintained under the proposed action. Tree removal, road renovation and construction will not occur on steep unstable slopes where the potential for mass wasting adjacent to stream reaches is greatest. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result from this action. Implementing Best Management Practices (BMP) for thinning, yarding, hauling, culvert replacement and road design and use will reduce the potential for detectable sediment delivery to streams as a result of operations. (EA pp. 35-36).

In addition, potential impacts resulting from tree harvest, road construction, maintenance and use will be mitigated to reduce the potential for detectable sediment delivery to streams, by implementing Best Management Practices (BMPs), such as stream and road buffers, minimum road widths, minimal excavation, ensuring appropriate drainage from road sites, and seasonal limitations on road use and ground-based harvest operations (RMP Appendix C, pp. C-1 to C-9) (EA pp. 35-36).

- **ACSO 6 – Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing:**

Ground Water: It is unlikely the proposal will result in any detectable change to local ground water. The proposal will remove less than half the existing forest cover in Riparian Reserve and less than 60 percent in the Matrix portions of the harvest area, and the root systems of the conifers retained will quickly exploit any additional soil moisture availability. Proposed road construction will not involve excavation into side slopes where water tables could be intercepted. (EA p. 34)

Base Flow: It is unlikely the proposal will result in any detectable change to local base flow, because the proposed project will remove approximately half the existing forest cover, so that the root systems of the conifers retained will quickly exploit any additional soil moisture availability. (EA p. 34)

Peak flow effects from harvest: Since portions of the project area are in a zone subject to transient snow accumulations in the winter, it can be assumed that the reduction in stand density may result in some small increase in snow accumulation and melting during rain-on-snow (ROS) events. However, due to the small area considered in this action, this effect is not likely to result in detectable changes to peak flows in these watersheds. (EA p. 34)

Peak flow effects from new road construction: New road construction under the proposed action will be limited to stable slopes. Slopes in these areas are low to moderate, and will not require extensive full-bench or cut-and-fill construction. This is unlikely to have a detectable effect on peak flows because there will be no interception of surface or ground water with delivery to streams. (EA pp. 34-35)

Peak flow effects from roads: Most of the roads that will be utilized under this proposal already exist. This proposal will not alter these roads in a way that will likely reduce or increase any existing effect to peak flows attributable to the current road network, and thus, it will maintain the current condition and trends relative to hydrology and stream flow that existing roads contribute to. Improvement and repair of road surfaces will be implemented under the proposed action. Some of these actions may reduce existing road effects on local and watershed hydrology (EA p. 35).

- **ACSO 7 - Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands:** Selected Action – See ACSO 1 and ACSO 3.
- **ACSO 8 – Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability:** Selected Action – See ACSO 1.
- **ACSO 9 - Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species:** Selected Action – See ACSO 1.

VI. Public Involvement/ Consultation/Coordination

Scoping:

A description of the proposal was included in the Salem Bureau of Land Management Project Update which was mailed to more than 1,000 addresses. A letter asking for scoping input on the proposal was mailed on September 27, 2006 to adjacent landowners, and individuals who expressed an interest in management activities in the resource area as a whole or in this area. Letters were also sent to the Confederated Tribes of Grande Ronde; Confederated Tribes of the Warm Springs Reservation of Oregon; Federal, State, County and local government organizations; and Special Interest groups.

Comment Period and Comments:

The Beeline/McDowell Creek Thinning EA was mailed to agencies, individuals and organizations. Legal notices were placed in the Molalla Pioneer and Albany Democrat Herald newspapers, soliciting public input on the actions, from March 21, 2007 to April 20, 2007. Responses to public comments can be found in section **XII.** of this Decision Rationale.

ESA Section 7 Consultation

The timber sale was submitted for Formal Consultation with U.S. Fish and Wildlife Service (USFWS) as provided in Section 7 of the Endangered Species Act (ESA) of 1973 (16U.S.C. 1536 (a)(2) and (a)(4) as amended).

1. U.S. Fish and Wildlife Service

The McDowell Creek Thinning project (along with the Beeline Thinning project) was submitted for ESA Section 7 Consultation during the programmatic consultation process on FY 2007-2008 habitat modification projects in the Willamette Province. The Biological Opinion associated with these thinnings was issued in September 2006 (reference # 1-7-06-F-0179). The BO concluded that these thinnings would not jeopardize the continued survival of the spotted owl (BO p. 95). None of the proposed units are located in Critical Habitat for the northern spotted owl.

The proposed thinning and connected actions described in this EA have incorporated the applicable Management Standards that were described in the BA (p.10) and BO (Section 1.2, pp. 18-19). In addition, this project would be in compliance with the general standards set forth in the BA (p. 6) and the BO (pp. 17-18), including monitoring and reporting on the implementation of this project and any adverse effects.

The BO concluded that there would be no proposed Reasonable and Prudent Measures, and Terms and Conditions would not be applicable since Management Standards common to all activities were developed which included measures to reduce incidental take (p. 97). In addition, as a design feature of this project, the discretionary Conservation Measure set forth in the BO (p. 97) would be provided for. The general seasonal restrictions for bark slippage and soil moisture coincide with the critical nesting season, effectively delaying disturbance activities until later into the nesting season and providing opportunities to survey for presence of spotted owls and implementing further restrictions on operations if needed. (EA pp. 63-64)

2. NOAA Fisheries (NMFS)

For action alternatives that would have “no effect” on UWR steelhead trout, UWR chinook salmon, LCR coho salmon, LCR Chinook salmon or LCR Steelhead trout. Consultation with NOAA Fisheries on the potential effects of the project on those species would not be required. Potential effects of the thinning and connected actions on the listed fish species are related to sediment inputs associated with road construction/ decommissioning and culvert replacement/removal. The selected action incorporates very little road construction (0.46 mile, none with hydrologic connectivity) or improvement (0.27 mile) and culvert replacement and log fill removal done only in low/no flow seasons. The 60’ stream protection zones on perennial streams are expected to prevent any decrease in stream shade that could result in an increase in stream temperature. The determination of “no effect” is based on the distances from proposed project units to ESA listed fish habitat and on the factors stated above that would prevent increases in sediment input, stream turbidity or temperature to stream reaches potentially occupied by ESA listed fish species (EA p. 64).

VII. Conclusion

Review of Finding of No Significant Impact

I have determined that change to the Findings of No Significant Impact (EA #OR080-06-06 FONSI – pp. 5-8) covering the McDowell Creek Thinning Timber Sale is not necessary because I’ve considered and concur with information in the EA and FONSI and this Decision Rationale. The comments on the EA were reviewed and no new information was provided in the comments that lead me to believe the analysis, data or conclusions are in error or that the selected action needs to be altered. The selected action would not have effects beyond those already anticipated and addressed in the RMP EIS.

Supplemental or additional information to the analysis in the RMP/FEIS in the form of a new environmental impact statement is not needed for the reasons described in the Findings of No Significant Impact (Beeline/McDowell Creek Thinning EA FONSI pp. 5-8) and in the following paragraphs. Effects of the selected action are similar or less than the effects described in the EA. The following describes the changes in effects between the EA proposed actions and the selected action.

a. *Special Status/ Survey and Manage Species – Wildlife*

Impacts of the selected action to Special Status Species would be less under the selected action than the proposed action due to fewer acres that would be impacted. The selected action includes 439 acres of mid seral stands, which is 141 acres (24%) less than the proposed action of 580 acres. As a result, ground disturbance, impacts to CWD, snags and mid seral stands would be less overall than that described under the proposed action in the respective EAs.

b. *Soils*

If a crawler tractor system is used for all the proposed ground-based units (391- acres), the percentage of total tractor unit area impacted by surface disturbance and soil compaction as a result of skid trails would be approximately 6%-8% (23 - 31 acres). With the implementation of design features described in the EAs and in this Decision Rationale, top soil displacement is expected to be moderate and soil compaction is expected to be moderate to heavy in crawler tractor skid trails. Outside of the skid trails, soil disturbance is expected to be light and no compaction is expected.

If a harvester is used for the entire proposed ground-based area (391 acres), soil displacement from operating this equipment between skid trails would be minor and soil compaction would be light to moderate (not likely to measurably effect the reestablishment or growth of vegetation) with the implementation of design features described in the EAs and in this Decision Rationale.

Some of the potentially impacted acreage listed above for ground-based yarding systems includes existing skid trails from previous logging. Where practical, portions of these existing skid trails would be used as skid trails for this project also. As a result, the amount of acreage for new or additional harvest impacts would be less than the total listed above. For the proposed project, the total (new and existing) area of impacted ground would not be expected to exceed the Salem District RMP guideline to not compact more than 10% of ground-based logging units.

The new road construction in this proposal will result in an increase of 1-2 acres of disturbed/compacted surfaces. The area proposed for cable winching (11 acres included in the ground based yarding area) is unlikely to result in discernible compaction of the soil because only logs, not machinery, would contact the ground, but some soil disturbance would be expected from dragging this limited number of logs without one end suspension.

c. *Hydrology and Aquatic Habitat (Including T/E Fisheries)*

Overall, impacts to hydrology and aquatic habitat and species would be similar under the selected action as that described under the proposed action in the EA. Pile burning along roads and on landings may produce small patches of soil with altered properties that restrict infiltration but they would be located outside of Riparian Reserves and are unlikely to result in surface erosion with delivery of sediment to local streams.

Fish and Aquatic Habitat: The effects to fish and aquatic habitat would be similar to those described in EA section 3.2.3. All units are adjacent to streams, but all have the associated Stream Protection Zones (SPZs), and all are located at least 2 miles upstream of ESA listed fish. The new road construction is located where it does not have the potential to intersect stream channels or cause stream sedimentation. Removal of the log fill and repair/replacement of deficient culverts will be beneficial to fish and aquatic habitat in the long term with only slight impacts in the short term.

d. *Invasive Species*

Impacts of the selected action on providing opportunities for invasive species would be less under the selected action than the proposed action due to fewer acres that would be impacted.

e. *Northern Spotted Owl*

Impacts of the selected action to spotted owls and dispersal habitat would be less under the selected action than the proposed action due to fewer acres that would be impacted. The selected action includes 439 acres of dispersal habitat, which is 141 acres (24%) less than the proposed action of 580 acres. The habitat would remain dispersal habitat after thinning.

Administrative Review Opportunities

The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management Regulations at 43 CFR 5003, protests of this decision may be made within 15 days of the publication of a notice of decision in a newspaper of general circulation. This notice of decision will be published in the Stayton Mail newspaper on January 30, 2008. To protest this decision a person must submit a written protest to Cindy Enstrom, Cascade Field Manager, 1717 Fabry Rd SE, Salem, Oregon 97306 by the close of business (4:00 p.m.) on February 14, 2008. The planned sale date is February 28, 2008.

The protest must clearly and concisely state the reasons why the decision is believed to be in error. Any objection to the project design or my decision to go forward with this project must be filed at this time in accordance with the protest process outlined above. If a timely protest is received, this decision will be reconsidered in light of the statements of reasons for the protest and other pertinent information available and shall serve a decision in writing on the protesting party (43 CFR 5003.3).

Implementation Date

If no protest is received within 15 days after publication of this Decision Record (McDowell Creek Thinning Timber Sale DR) this decision will become final.

Agency contact: For additional information, contact Carolyn Sands (503) 315-5973, Keith Walton (503) 375-5676 or Rudy Hefter (503) 375-5671, Cascades Resource Area, Salem BLM, 1717 Fabry Road SE, Salem, Oregon 97306.

Approved by: Cindy Enstrom
Cindy Enstrom
Cascades Resource Area Field Manager

1/31/2008
Date

VIII. Comparison of the Selected Action with the EA Proposed Action

Table 3: Comparison of the Selected Action with the EA Proposed Action

| Legal T-R-S | OI Unit | | EA Unit | TS Contract Unit | Silvicultural Prescription Acres* (Proposed Action) | | | Contract Acres* (Selected Action) | | | Structural Complexity Treatment in Riparian Reserve | |
|--------------------|---------|-----|---------|------------------------|--|------|---------------------|--------------------------------------|------|---------------------|---|------------|
| | Old | New | | | Total | GFMA | Riparian Reserve | Total | GFMA | Riparian Reserve | Gaps | Clumps |
| | | | | | | | | | | | # / Tot.Ac | # / Tot.Ac |
| 12S-1E-21 | 010 | 011 | 21C | 1 | 15 | 15 | 0 | 12 | 11 | 1 | 0/0 | 0/1.25 |
| | 060A | 061 | 21B | 2 | 15 | 13 | 2 | 15 | 13 | 2 | 1/0.25 | 0/0 |
| | 060C | 062 | 21A | 3 | 25 | 23 | 2 | 31 | 29 | 2 | 1/0.5 | 0/0 |
| 12S-1E-27 | 040 | 041 | 27A | 4 | 50 | 46 | 4 | 31 | 24 | 7 | 0/0 | 3/0.75 |
| | 020 | 031 | 27B | 5 | 15 | 13 | 2 | 13 | 7 | 6 | 1/0.5 | 0/0 |
| | 030 | 021 | 27C | 6 | 9 | 8 | 1 | 8 | 6 | 2 | 1/0.5 | 0/0 |
| 12S-1E-25 | 020A | 031 | 25A | 7 | 39 | 26 | 13 | 39 | 19 | 20 | 2/2.0 | 2/1.0 |
| | 030A | | | | | | | | | | | |
| | 020B | 021 | 25D | 8 | 297 | 267 | 30 | 230 | 149 | 81 | 2/1.5 | 8/6.0 |
| | | 022 | 25C | 9 | 35 | 30 | 5 | 35 | 23 | 12 | 0/0 | 2/0.5 |
| | 030B | 032 | 25B | 10 | 24 | 21 | 3 | 24 | 14 | 10 | 1/0.5 | 1/0.5 |
| | | | | RW | | | | 1 | 1 | 0 | 0/0 | 0/0 |
| | | | | Total | 524 | 462 | 62 | 439 | 296 | 143 | | |
| EA Analysis Acres* | | | | | 580 | 360 | 220 | | | | | |

*Preliminary mapping used for EA analysis by the Interdisciplinary Team (IDT) is based on information in the GIS data base and initial reconnaissance. The silvicultural prescription acres are based on additional field work and data collection. Contract acres are based on Global Positioning System surveys of actual treatment boundaries.

IX. Maps

Jan 22, 2008

Maps of the selected action are shown on the following 3 pages.

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Salem District - Oregon

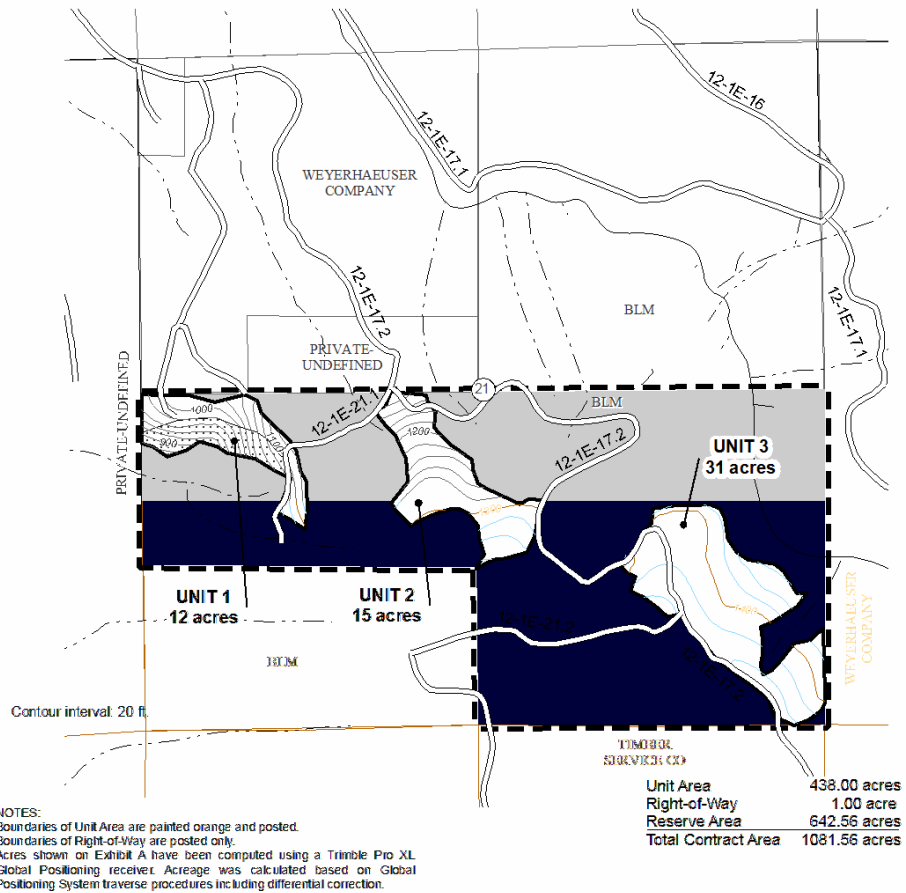
McDowell Creek Thinning
Tract 2008-502

EXHIBIT A

TIMBER SALE CONTRACT MAP - CONTRACT NO. OR-080-TS08-502

Sheet 1 of 3

T. 12 S. R. 1 E., Section 21, W.M. - SALEM DISTRICT - OREGON



- Right of Way / Road to be Constructed
- Existing road
- Non fishbearing stream
- Fishbearing stream

- Boundary - Unit Area
- Boundary - Contract Area
- Unit Area - Ground based yarding
- Unit Area - Skyline yarding
- Reserve Area

1,000 500 0 1,000 Feet



UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Salem District - Oregon

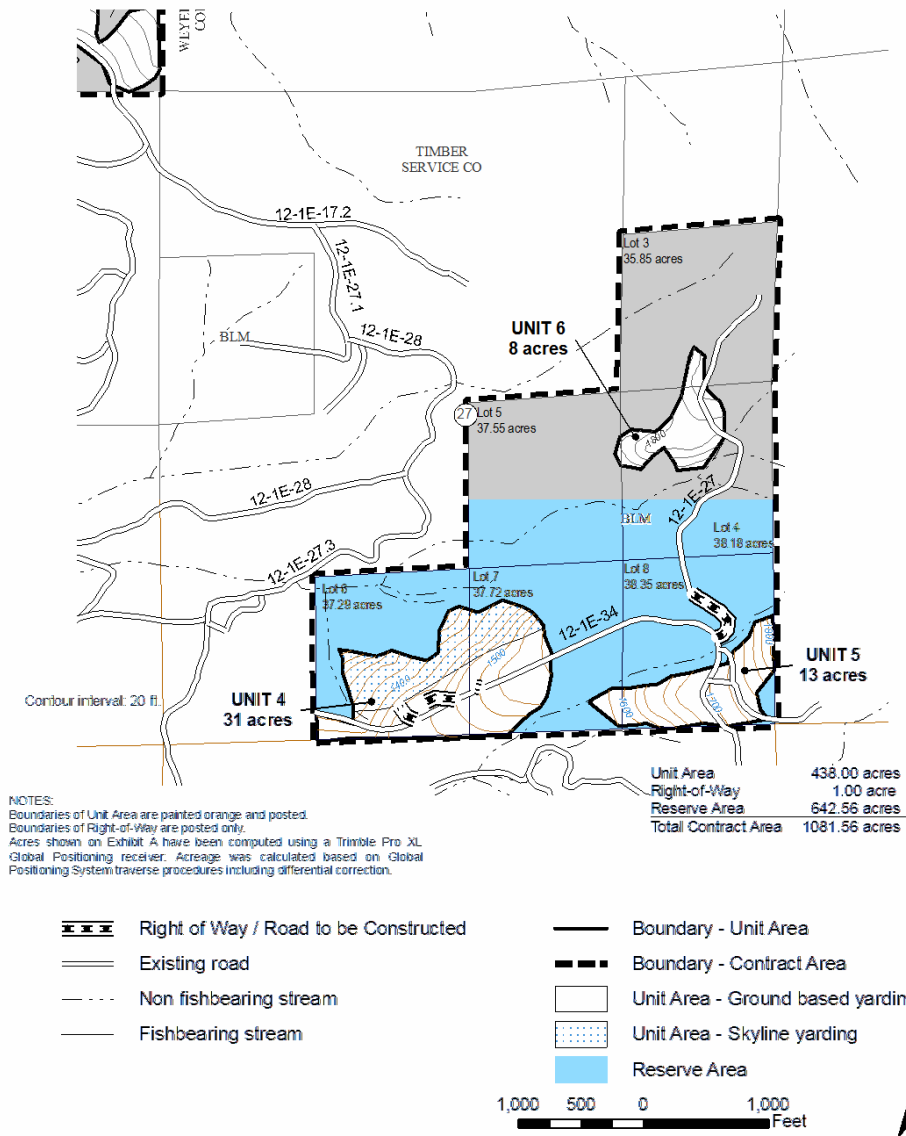
McDowell Creek Thinning
Tract 2008-502

EXHIBIT A

Sheet 2 of 3

TIMBER SALE CONTRACT MAP - CONTRACT NO. OR-080-TS08-502

T. 12 S., R. 1 E., Section 27, W.M. - SALEM DISTRICT - OREGON



UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Salem District - Oregon

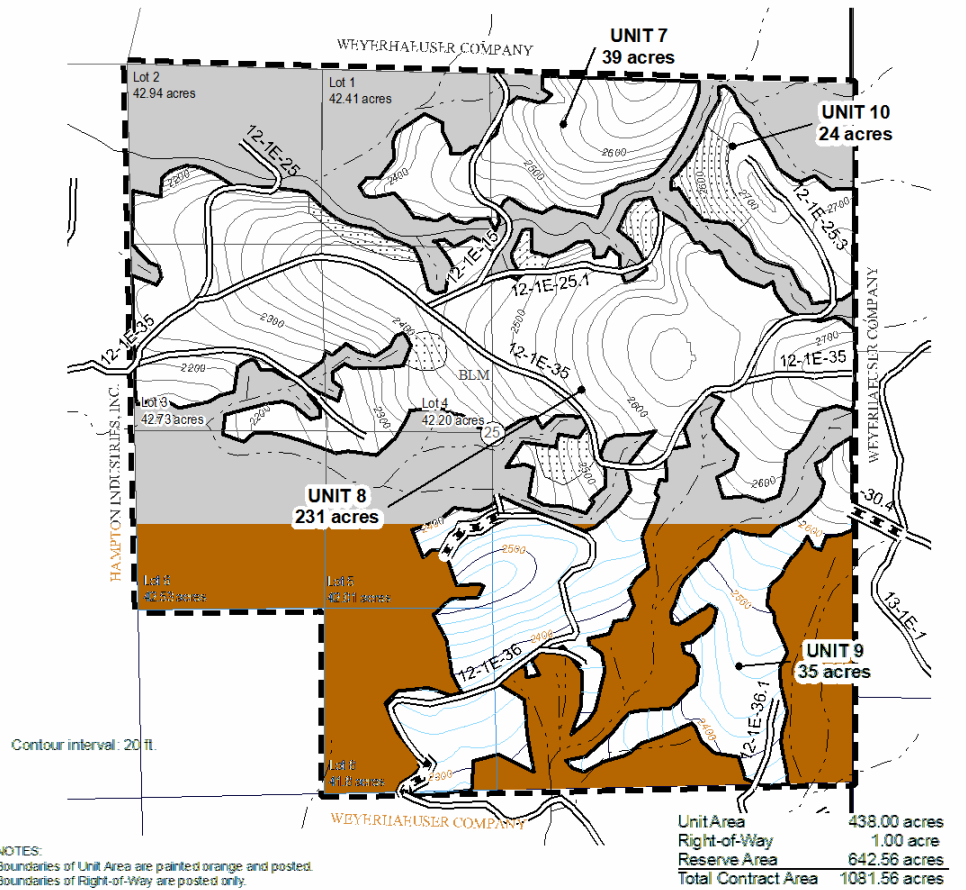
McDowell Creek Thinning
Tract 2008-502

EXHIBIT A

Sheet 3 of 3

TIMBER SALE CONTRACT MAP - CONTRACT NO. OR-080-TS08-502

T. 12 S., R. 1 E., Section 25, W.M. - SALEM DISTRICT - OREGON



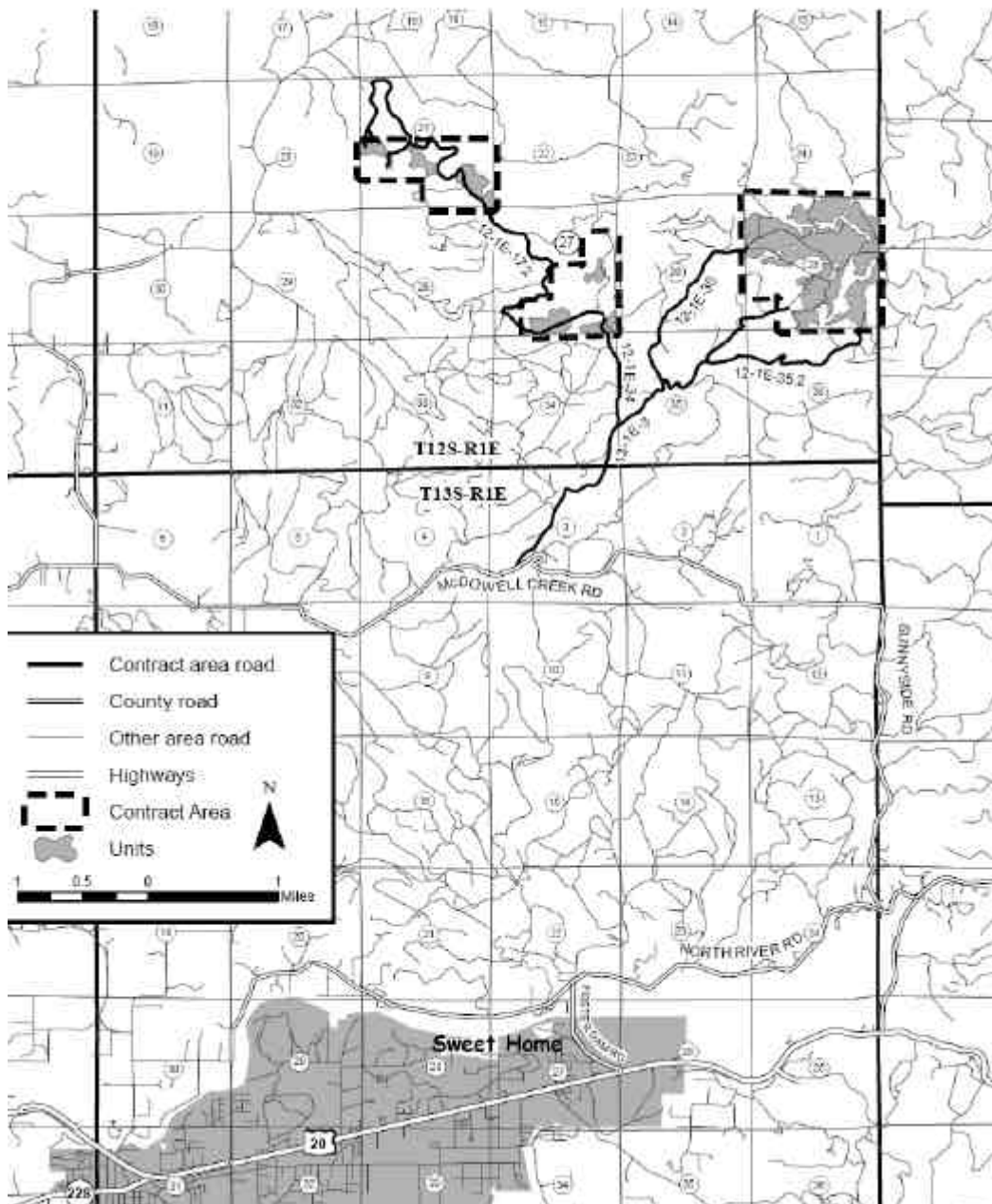
- Right of Way / Road to be Constructed
- Existing road
- Non fishbearing stream
- Fishbearing stream

- Boundary - Unit Area
- Boundary - Contract Area
- Unit Area - Ground based yarding
- Unit Area - Skyline yarding
- Reserve Area

1,000 500 0 1,000 Feet



LOCATION MAP



X. Project Design Features

This section describes the project design features that apply to the Selected Action. Where the design feature is identical to the design feature prescribed in the EAs, the EA reference is provided. Project design features for the EA proposed actions and alternatives are described in Beeline/McDowell Creek Thinning section 2.2.3. Design features are organized by resource management objectives.

1. **Soil Productivity:** Design features described in the EA (pp.21-22) would be applied to the Selected Action. Examples include: a) using currently available equipment and practices that limit soil compaction to less than 10 percent of the area and minimize soil disturbance and erosion potential; b) preventing erosion by logging design, practices and post harvest treatment of disturbed areas; c) limiting ground based operations to relatively dry soil conditions; d) limiting new skid trails to slopes less than 35 percent; e) burning piles when soils are wet and less susceptible to heat damage.
2. **To protect hydrologic functions, aquatic habitat and fisheries:** Design features described in the EA (pp. 22-23) would be applied to the Selected Action. Examples include: a) maintain areas of undisturbed vegetation between streams and harvest areas, also known as stream protection zones (SPZ); b) replacing live stream culverts during the in-stream work period; c) constructing, improving, renovating and stabilizing roads during dry conditions; d) stabilizing, and controlling access to all new roads upon project completion; e) placing erosion control measures on roads left open over the winter; f) restricting hauling to times and road conditions that would not generate large amounts of sediment that could enter streams.
3. **To protect and enhance the residual stand, stand diversity, and wildlife habitat components:** Design features described in the EA (p.23) would be applied to the Selected Action. Examples include: a) retaining old growth, snags, minor conifer tree species, hardwoods, and most cull and deformed trees; b) retaining existing CWD intact whenever feasible; c) maintaining minimum canopy closures of 40 percent in Matrix and 50 percent in Riparian Reserve; d) restricting operations during the spring growing season when the bark of retained trees is easily damaged.
4. **To protect against expansion of invasive and non-native plant species:** Design features described in the EA (p. 23) would be applied to the Selected Action. Examples include: a) cleaning equipment to prevent importing off-site plants; b) using only native species seed and sterile mulch to stabilize disturbed soil.
5. **To minimize disturbance to BLM Special Status Species and other Species of Concern:**

Northern Spotted owl: The seasonal restrictions to protect the retained trees from bark damage and to prevent soil damage would also delay operations until later in the owl nesting season, allowing time for additional surveys as needed. Other standard provisions of the contract allow for restricting operations if owls are found. Since there is no suitable habitat and no owls have been found in or adjacent to the project area in the

Selected Action, no specific owl nesting season restrictions on operations are required.

Other: Design features described in the EA (p. 24, Item 4, Bullet 3) will be applied to the Selected Action. Examples include: shutting down or restricting operations after finding plant or animal populations that require protection.

6. **To reduce fire hazard risk and protect air quality:** Design features described in the EA (p.24) would be applied to the Selected Action. Examples include: a) treating activity fuels (woody debris that could contribute to fire spread) near open roads and adjacent to property lines in Rural/Urban Interface areas; b) burning in compliance with the state Smoke Management Plan; c) closing or gating roads to reduce fire risk on a site-specific basis.
7. **To protect cultural resources:** Design features described in the EA (p. 24) would be applied to the Selected Action. Examples include: shutting down or restricting operations after finding cultural resources that require protection.
8. **Summary of seasonal restrictions and permitted operational periods:** Seasonal restrictions described in the EA (p.24) would be applied to the Selected Action, with the exception of a specific owl nesting season restriction as described in Item 5, above. Examples include: a) restricting falling and yarding during the bark slippage period; b) restricting tractor operations to avoid soil damage; c) restricting road Construction, Improvement and Renovation to dry conditions as an erosion control measure and to avoid soil damage; d) restricting work in streams (e.g. live stream culvert replacement) to in-water work periods to protect fish species.

XI. Compliance with Survey and Manage Direction

2001 ROD Compliance Review: Survey & Manage Wildlife Species

Environmental Analysis File

Salem District BLM – Cascades Resource Area

Project Name: McDowell Creek Timber Sale

Prepared By: Jim England

Project Type: Commercial Thinning

Date: January 23, 2007

Location: T.12S, R.1E, Secs. 21, 25 and 27, Willamette Meridian

Table A. Survey & Manage Wildlife Species. Species listed below include those species whose known range includes the Salem District Cascades Resource Area (CRA) according to *Survey Protocols for Amphibians under the Survey & Manage Provision of the Northwest Forest Plan v3.0* (1999), *Survey Protocol for the Great Gray Owl within the Range of the Northwest Forest Plan v3.0* (Jan. 2004), *Survey Protocol for the Red Tree Vole v2.1* (Oct. 2002) and those mollusk species that are known or suspected within the CRA according to the *Survey Protocol for S&M Terrestrial Mollusk Species v3.0* (Feb. 2003).

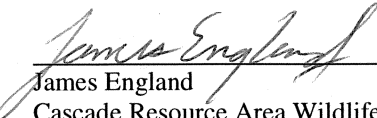
| SPECIES | S&M CATEGORY | SURVEY TRIGGERS | | | SURVEY RESULTS | | | SITE MANAGEMENT? |
|---|--------------|------------------------------|------------------------------------|--|-------------------|--------------------------|-----------------------|------------------|
| | | Within range of the species? | Project contains suitable habitat? | Project may negatively affect species/habitat? | Surveys Required? | Survey Date (month/year) | Sites Known or Found? | |
| Vertebrates | | | | | | | | |
| Larch Mountain Salamander ¹ (<i>Plethodon larselli</i>) | A | N | N | NA | N | NA | NA | NA |
| Great Gray Owl ² (<i>Strix nebulosa</i>) | A | Y | N | NA | N | NA | NA | NA |
| Oregon Red Tree Vole ³ (<i>Arborimus longicaudus</i>) | C | Y | N | NA | N | NA | NA | NA |
| Mollusks | | | | | | | | |
| Puget Oregonian ⁴ (<i>Cryptomasix devia</i>) | A | N | N | NA | N | NA | NA | NA |
| Crater Lake Tightcoil ⁵ (<i>Pristiloma arcticum crateris</i>) | A | Y | N | NA | N | NA | NA | NA |
| Evening Fieldslug ⁶ (<i>Deroceras hesperium</i>) | B | Y | N | NA | N | NA | NA | NA |
| Columbia Dusksnail ⁷ (<i>Lyogyrus</i> n. sp. 1) | A | N | N | NA | N | NA | NA | NA |
| Basalt Juga ⁸ (<i>Juga</i> [<i>Oreobasis</i>] n. sp. 2) | A | N | N | NA | N | NA | NA | NA |

NA = Not Applicable

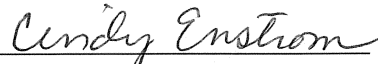
- ¹ In the Salem District, the range of the Larch Mountain salamander is only in the very northern portion of the Cascades Resource Area, within 14 miles of the Columbia River, east of the confluence with the Sandy River according to *Survey Protocols for Amphibians under the Survey & Manage Provision of the Northwest Forest Plan v3.0* (1999) pages 262 and 269. The project area is not within this range.
- ² Pre-disturbance surveys for great gray owls are not required within the project area due to lack of suitable habitat. The required habitat characteristics of suitable habitat in Oregon Western Cascades Physiographic Province includes: (1) large diameter nest trees, (2) forest for roosting cover, and (3) proximity [within 200m] to openings that could be used as foraging areas (*Survey Protocol for the Great Gray Owl within the range of the Northwest Forest Plan v3.0*, January 12, 2004 pg 13). It is not necessary to survey suitable nesting habitat adjacent to natural openings smaller than 10 acres (page 5) and pre-disturbance surveys are not suggested in suitable nesting habitat adjacent to man-made openings at this time (pg. 14).
- ³ In general, the red tree vole was removed from the Survey and Manage program in the Mesic zone as a result of the 2003 Annual Species Review process. In the Salem District, pre-disturbance surveys for red tree voles are required to be conducted only in suitable habitat of the North Mesic Zone of their range, and the project area falls within this zone. There are no survey triggers for the Red Tree Vole (Version 2.1, Revision, October 2002) and thus no protection is required (*Management Recommendations for the Oregon Red Tree Vole*, Version 2.0, September 27, 2000). The described habitats are not present within the project area.
- ⁴ In the Salem District, the range of *Cryptomastix devia* is limited to the Tillamook Resource Area, and Multnomah County in the Cascades Resource Area. The project area is not within this range.
- ⁵ In the Salem District, *Pristiloma artium crateris* is suspected to occur above 2,000 feet elevation in the Cascades Resource Area only. This species is "limited to perennially wet situations in mature conifer forests, among rushes, mosses and other surface vegetation or under rocks and woody debris within 10 m of open water in wetlands, springs, seeps and riparian areas, generally in areas which remain under snow for long periods in the winter." Unless these specific habitats will be disturbed, no surveys are necessary. The described habitats are not present within the project area and will not be disturbed.
- ⁶ In the Salem District, *Derocerus hesperium* has the potential to occur in all three resource areas however it is "limited to moist surface vegetation and cover objects within 30 m (98 ft.) of perennial wetlands, springs seeps and riparian areas." Unless these specific habitats will be disturbed, no surveys are necessary. Where habitat is present, equivalent-effort pre-disturbance surveys are required for this species. The described habitats are not present within the project area and will not be disturbed.
- ⁷ *Lyogyrus* n. sp. 1 is a Columbia Gorge endemic, found on both sides from east and south of Portland to Hood River, Oregon. Most sites are in Gorge tributaries; a few other sites occur in drainages originating from near Mount Hood, Oregon, to Mount St. Helens, Washington. In the Salem District, it is likely to be found only in the Cascades Resource Area, and only in cold, pure, well-oxygenated springs within a few miles of the Columbia River in Multnomah County. This project is not tributary to the Columbia Gorge. The described habitats are not present within the project area.
- ⁸ *Juga* n. sp. 1 is a Columbia Gorge endemic, and is found sporadically in springs in the central and eastern portions of the Columbia Gorge on the Oregon side only in Hood River and Wasco counties, Oregon, including sites in Mount Hood National Forest and sites in Columbia Gorge National Scenic Area. In the Salem District, it is likely to be found only in the Cascades Resource Area, and only in cold, pure, well-oxygenated springs within a few miles of the Columbia River in Multnomah County. The project is not located in Multnomah County and is not tributary to the Columbia Gorge. The described habitats are not present within the project area.

Statement of Compliance. Pre-disturbance surveys and management of known sites required by Survey Protocols and Management Recommendations to comply with the *2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (as the 2001 ROD was amended or modified as of March 21, 2004) were completed for McDowell Creek Project. There are no known Category B, C, D, E, and F wildlife species within the McDowell Creek Timber Sale project area.

Therefore, based on the preceding information (refer to Table A above) regarding the status of surveys and site management for Survey & Manage wildlife species, it is my determination that the McDowell Creek Timber Sale project complies with the provisions of the *2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (as the 2001 ROD was amended or modified as of March 21, 2004). For the foregoing reasons, this project is in compliance with the 2001 ROD as stated in Point (3) on page 14 of the January 9, 2006, Court order in Northwest Ecosystem Alliance et al. v. Rey et al. In addition, these types of projects fall under the exemptions specified in the October 11, 2006 modification of Northwest Ecosystem Alliance et al. v. Rey et al.


James England
Cascade Resource Area Wildlife Biologist
Salem District
Bureau of Land Management

1-31-08
Date


Cindy Enstrom,
Cascade Resource Area Field Manager
Salem District
Bureau of Land Management

1-31-2008
Date

2001 ROD Compliance Review: Survey & Manage Botany Species

Environmental Analysis File

Salem District Bureau of Land Management – Cascade Resource Area

Project Name: McDowell Creek Timber Sale Prepared By: Terry Fennell

Project Type: Commercial Thinning Date: 08/29/2006

Location: Areas of Proposed Action in T12S-R1E-Sec.21, 25, 27

S&M List Date: December 2003

Table A. Survey & Manage Species Known and Suspected in the Salem District. Species listed below were compiled from the 2003 Annual Species Review (IM-OR-2004-034) and includes all species in which pre-disturbance surveys may be needed (Category A, C and non-fungi Category B species if the project occurs in old-growth as defined on page 79-80 of the 2001 ROD) and lists known sites of other survey and manage species that are known to occur within the project area. In addition, the table indicates whether or not a survey was required, survey results and site management.

The following survey protocols and literature were used in determining species known range, habitat and survey methodology. All field surveys were conducted using the intuitive controlled method.

Fungi:

- Survey Protocols for *Bridgeoporus* (= *Oxyporus*) *nobilissimus* (Version 2.0, May 1998)
- Handbook to Strategy 1 Fungal Species in the Northwest Forest Plan (Oct. 1999)
- Handbook to Additional Fungal Species of Concern in the Northwest Forest plan (Jan. 2003)

Lichens:

- Survey Protocols for Component 2 Lichens (Version 2.0, March 1998)
- Management Recommendations for Survey and Manage Lichens (Version 2.0, March 2, 2000)
- Survey Protocols for Survey and Manage Category A & C Lichens in the Northwest Forest Plan Area (Version 2.1 (2003)
- 2003 Amendment to the Survey Protocol for Survey and Manage Category A & C Lichens. (Version 2.1 Amendment, September 2003)
- Survey Protocol Guidance For Conducting Equivalent Effort Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines. (March 2006).
- Pseudocyphellaria perpetua* Supplemental Guidance for Pre-Disturbance Surveys Under the Northwest Forest Plan Survey and Manage Standard and Guidelines (March 2006).

Bryophytes:

- Survey Protocols for Protection Buffer Bryophytes (Version 2.0)

Vascular Plants:

- Survey Protocols for Survey and Manage Strategy 2 Vascular Plants (Version 2.0, December 1998).

All species: Rare, Threatened and Endangered Species of Oregon; Oregon Natural Heritage Information Center (May 2004).

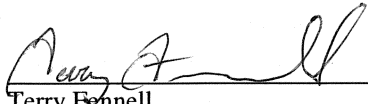
| Species | S&M Category | Survey Triggers | | | Survey Results | | | Site Management |
|---|--------------|------------------------------|------------------------------------|--|-------------------|------------------------|-----------------------|-----------------|
| | | Within Range of the Species? | Project Contains Suitable habitat? | Project may negatively affect species/habitat? | Surveys Required? | Survey Completion Date | Sites Known or Found? | |
| Fungi | | | | | | | | |
| Bridgeoporus nobilissimus | A | Yes | No | No | No ^{1,7} | N/A | No | No |
| Lichens | | | | | | | | |
| Bryoria pseudocapillaris | A | No | No | No | No ³ | N/A | No | No |
| Bryoria spiralifera | A | No | No | No | No ³ | N/A | No | No |
| Dendroscocaulon intricatulum | A | Yes | Yes | Yes | Yes | Various ⁹ | No | No |
| Hypogymnia duplicata | C | Yes | Yes | Yes | Yes ⁴ | Various ⁹ | No | No |
| Leptogium cyanescens | A | Yes | Yes | Yes | Yes | Various ⁹ | No | No |
| Lobaria linita var.tenuoir | A | Yes | Yes | Yes | Yes | Various ⁹ | No | No |
| Nephroma occultum | C | Yes | Yes | Yes | Yes ⁴ | Various ⁹ | No | No |
| Niebla cephalota | A | No | No | No | No ³ | N/A | No | No |
| Pseudocyphellaria perpetua | A | No | No | No | No ³ | N/A | No | No |
| Pseudocyphellaria rainierensis | A | Yes | Yes | Yes | Yes ⁴ | Various ⁹ | No | No |
| Teloschistes flavicans | A | No | No | No | No ² | N/A | No | No |
| Bryophytes | | | | | | | | |
| Schistostega pennata | A | Yes | Yes | Yes | Yes ⁵ | Various ⁹ | No | No |
| Tetraphis geniculata | A | Yes | Yes | Yes | Yes ⁵ | Various ⁹ | No | No |
| Vascular Plants | | | | | | | | |
| Botrychium minganense | A | No | No | No | No ⁷ | N/A | No | No |
| Botrychium montanum | A | No | No | No | No ⁷ | N/A | No | No |
| Coptis asplenifolia | A | No | No | No | No ⁶ | N/A | No | No |
| Coptis trifolia | A | No | No | No | No ⁷ | N/A | No | No |
| Corydalis aquae-gelidae | A | Yes | Yes | Yes | Yes ⁴ | Various ⁹ | No | No |
| Cypripedium fasciculatum | C | No | No | No | No ⁷ | N/A | No | No |
| Cypripedium montanum | C | Yes | Yes | Yes | Yes ⁷ | Various ⁹ | No | No |
| Eucephalis vialis | A | No | No | No | No ⁷ | N/A | No | No |
| Galium kamtschaticum | A | No | No | No | No ⁶ | N/A | No | No |
| Plantanthera orbiculata var. orbiculata | C | No | No | No | No ⁶ | N/A | No | No |
| Category B Species (equivalent effort surveys needed if project area includes old-growth as defined in 2001 ROD glossary, p. 79-80) | | | | | | | | |
| None | | | Yes | N/A | No ⁸ | Various ⁹ | No | |
| Additional Category B, D, E & F known sites located within the proposed project Area | | | | | | | | |
| None | | | Yes | N/A | No ⁸ | Various ⁹ | No | |

- 1 This species is only associated with large diameter true fir (above 2500' in Oregon). There is no suitable habitat within or adjacent to the project area.
- 2 This species known range within the NW Forest Plan is along the immediate coast or within the coastal fog zone within sight or sound of the Pacific Ocean. This project is not within the known range.
- 3 This species is only known from Cape Perpetua on the Oregon coast. This project is not within the known range.
- 4 This species is known to occur on Bureau of Land Management lands within the Cascades Resource Area.
- 5 This species is known to occur on Forest Service lands adjacent to the Cascade Resource Area.
- 6 This species is only known from western Washington. There are no known sites in Oregon.
- 7 This species is not known to occur on Bureau of Land Management lands within the Salem District.
- 8 Although surveys are not required for Category B, D, E, and F species, if suitable habitat is present in the proposed project area these species are addressed while conducting required botanical surveys.
- 9 Survey Dates: **Aug.** 24th, 31st, **Sept.** 1st, 6th, **Oct.** 11th 2005

SUMMARY OF SURVEY RESULTS: No category A, B, C, D, E or F species were identified during any survey of the proposed **McDowell Creek Timber Sale** area.

STATEMENT OF COMPLIANCE: Pre-disturbance surveys and management of known sites required by protocol standards to comply with the 2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (as the 2001 ROD was amended or modified as of March 21, 2004) were completed for **McDowell Creek Timber Sale**. The **McDowell Creek Timber Sale** also complies with site management for any Category B, D, and E species as identified in the 2001 ROD (as modified).

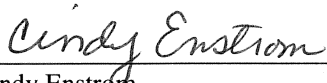
Therefore, based on the preceding information (refer to Table A above) regarding the status of surveys and site management for Survey & Manage botanical species, it is my determination that the **McDowell Creek Timber Sale** complies with the provisions of the 2001 *Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines* (as the 2001 ROD was amended or modified as of March 21, 2004). For the foregoing reasons, the **McDowell Creek Timber Sale** is in compliance with the 2001 ROD as stated in Point (3) on page 14 of the January 9, 2006, Court order in Northwest Ecosystem Alliance et al. v. Rey et al.



Terry Fennell,
Cascade Resource Area Botanist
Salem District
Bureau of Land Management

1/31/2008

Date



Cindy Enstrom,
Cascade Resource Area Field Manager
Salem District
Bureau of Land Management

1/31/2008

Date

XII. Response to EA Comments

A notice that the Beeline/McDowell Creek Thinning EA had been completed and was available for review was mailed to 63 agencies, individuals and organizations on March 21, 2007. Paper copies of the EA were mailed to one organization and one individual on the same date. Legal notices (EA Review for Beeline/McDowell Creek Thinning) were placed in the Albany Democrat-Herald newspaper and the Molalla Pioneer newspaper on March 21, 2007, soliciting public input on the action from March 21, 2007 to April 20, 2007. One comment letter from an individual and two comment letters from organizations were received. The major concerns raised in the comments have been consolidated and summarized.

Reasonable range of alternatives

Comment 1: "The EA prepared for the Beeline and McDowell Creek timber sales fails to give an adequate discussion or analysis of alternatives to the proposed action. This scope of alternatives is only adequate if the alternatives presented permit the decision-maker a reasonable choice. Part of the purpose and need of this project, as started in the EA, is "to maintain and develop safe, efficient and environmentally sound road system" and "reduce environmental effects associated with identified existing roads within the project areas." (EA 1.2) Surely there are other action alternatives that could better meet this purpose and need, and have meaningful differences to the environment, than simply the action item presented." (Bark 2007 pg 1)

Response 1: Bark expressed the opinion that the range of alternatives presented in the EA is insufficient to provide the decision maker with a reasoned choice. Bark did not, however, offer any suggested alternatives that meet the purpose and need of the project. Alternatives were considered that include regeneration harvest and variable density thinning but the stands considered either did not fit the criterion or would not achieve the objectives as well as the proposed prescription. (EA 2.4) The first purpose and need "to maintain and develop safe, efficient and environmentally sound road system" is to provide appropriate access for timber harvest, silvicultural practices, and fire protection vehicles needed to meet the objectives." (EA 1.2) Without the need of the timber harvest in this area maintenance and development would not be needed.

Cumulative Impacts

Comment 2: "The justification for combining these two projects into one EA is inappropriate.....considering the potential conflict of analyzing the environmental impacts of two different actions with one document." (Bark 2007 pg 2)

Response 2: The connected action in the two project areas that give reason to document them in one EA are found in EA 1.1 The document shows that the common denominator of the two projects focus on the silviculture prescriptions and the Purpose and Need for Action, not geographic locations. The analysis in the Beeline/McDowell EA is site specific and supplements analyses found in the Salem District Resource Management Plan/ Final Environmental Impact Statement, September 1994 (RMP/FEIS). (EA 1.3)

Access and Public Involvement

Comment 3: "The majority of the roads leading to public lands in question were routinely closed to private holding gates....Consider using signage and communication with other parties that these gates must stay open for, AT LEAST, the period you are actively inviting the public comment." (Bark 2007 pg 5)

Response 3: Unfortunately some public lands are land locked by privately owned land. It is the private land owners' choice to restrict access in and through their land at any time. BLM has no authority to dictate otherwise.

Comment 4: Public was unable to find "2007 Timber Sale Thinning EA" which was referenced as a source. (Bark 2007 pg 5)

Response 4: During the scoping phase of the planning process BLM made the decision to separate the Beeline/ McDowell Creek projects from the Gordon Creek project which was originally called 2007 Thinning projects. BLM never published an EA document named "2007 Timber Sale Thinning EA," and none was ever available to public because none exists.

This is indicated by the subtitle on the cover page of the EA which reads: "Formerly 2007 Timber Sale Thinning". This is repeated in the FONSI on page 5, paragraph 2 of the EA.

Aquatic Conservation Strategy

Comment 5: "Since the EA was released, the court has ruled that the 2004 amendment of the Aquatic Conservation Strategy (ACS) was illegal. The BLM should revisit the analysis to ensure compliance with ACS objectives at all spatial scales." (Bark 2007 pg 2 & Oregon Wild 2007 p 1)

Response 5: As described on page 14 of the EA, the court did not rule that the 2004 ACS objectives amendment was illegal. See Decision Rationale (DR) p. 10. Pages 11-15 of the DR show how the McDowell thinning project meets the Aquatic Conservation Strategy in the context of PCFFA IV and PCFFA II.

Comment 6: "The Beeline/McDowell Creek EA by ignoring the consequences from the peak flow erosion, and relying on untested mitigation assumption, fails to demonstrate that the objectives of the Aquatic Conservation Strategy will be attained...there is no information about how this project is adhering to ACS standards." (Bark 2007 pg 3)

Response 6: Project compliance with the four components of the Aquatic Conservation Strategy for all action alternatives is found in Table 13, EA section 3.3 and applies to both projects.

Comment 7: One of your evaluation criteria should be whether any short term degradation of ACS objectives is off-set by long term benefits brought about by the proposed action." (Oregon Wild pg 6)

Response 7: Short term and long term effects are addressed in association with each resource under its environmental effects. Specific discussion is found in EA 3.2.1.1 (Vegetation and Forests Stand), 3.2.2.1 (Hydrology), EA 3.2.3.1 (Fisheries), EA 3.2.4.1 (Soils), 3.2.5.1 (Wildlife), 3.2.6.1 (Air Quality and Fire Hazard) and EA 3.2.7.1 (Recreation).

Roads and Culvert Replacement

Comment 8: “More information in the EA about what techniques would be used to replace the culverts would be helpful to know.....Will the culverts be replacements of what already exists? Will the culverts that are currently too small in diameter be replaced with larger openings? Will the replacements compensate for erosion to avoid further pooling on the inlet and excessive drop-off outlet? Where inboard ditch culverts are in need of replacements, what measures will be taken to ensure that road runoff is not directly draining into streams? (Bark 2007 pg 3-4)

Response 8: Inadequate or damaged culverts are proposed for replacement to reduce potential blockage and meet 100 year flood standards. Repairs to existing roads at stream crossings and through wetlands will maintain the channel alterations currently in place. In some cases, larger culverts and more stable fills will allow for improved channel morphology over the long term by reducing sediment inputs at the crossing and by increasing the culvert’s capacity to accommodate the stream during peak flows. (EA 2.2.1) Upon project completion native grass seed is applied in areas that receive soil disturbance as a result of project activities to help reduce erosion. (EA 2.2.3. section 2; Cascades Resource Area Botanical Report). Sediment would be filtered from ditches that drain into streams, using natural vegetation and artificial sediment traps or filters. Hauling would be restricted to prevent generating large amounts of sediment that could enter streams (EA 2.2.3. section 2).

Comment 9: “.....there is no information about this road obliteration.....Which roads will be obliterated? How will they be ripped? What will they be reseeded with? How will they be blocked? How will this closure be enforced against off-road vehicle abuse?” (Bark 2007 pg 4)

Response 9: “Obliteration” is not a proposed design feature and the term is not used in the EA. Decommissioning of roads is covered in EA 2.2.3 section 2, stating that roads that are not expected to be used within the next several years would be decommissioned by removing culverts, constructing water bars or other surface shaping, re-establishing natural drainage patterns, deep tilling, seeding with native species, and/or other techniques to prevent erosion and promote infiltration of water. Logging slash and logging debris would be placed in key locations to deter OHV users from re-opening existing trails or creating new ones. (EA 3.2.1.7)

Comment 10: “The EA does not appear to have a site-specific analysis of road impacts.” (Oregon Wild 2007 pg 2)

Response 10: Road impacts are addressed in association with each resource under its Cumulative effects section. Road impacts addressed for specific resources can be found in EA 3.2.2.1 (Hydrology), EA 3.2.3.1 (Fisheries), EA 3.2.4.1 (Soils), and EA 3.2.7.1 (Recreation).

Comment 11: “If young stand thinning requires construction of temporary roads, the agency should do an analysis that illuminates how many acres of thinning are reached by each road segment so that we can distinguish between short segments of spur that allow access to large areas (big benefit, small cost) and long spurs that access small areas (small benefit, big cost). This can help inform the decision-makers balancing of the costs and benefits of thinning and roading.” (Oregon Wild 2007 pg 6)

Response 11: EA Section 2.2.1 discusses road work associated with this project. Under the selected action approximately 0.5 miles of new natural surface road construction would be taking place. EA p. 20 illustrates the areas being accessed by new construction. The maps included in the EA and project files provide adequate information to the decision maker to understand the relationship between roads and areas treated.

Comment 12: "What is the reason for the 0.5 miles of new road construction? Is it necessary? ...Will this section of road be decommissioned after this project is completed? If not, why not?" (K.S. 2007 pg 2)

Response 12: The 0.5 miles of new road construction is designed to decrease the amount of skid trails and provide access for skyline yarding of areas that are steeper than BMPs allow for skidding. The new roads would be natural surface and following completion of the timber sale would be decommissioned.

Comment 13: "Why not remove roads located within Riparian Reserves, rather than renovating them?" (K.S.2007 pg 5)

Response 13: Existing roads within the Riparian Reserve provide access to areas proposed for treatment. To decommission or obliterate those roads in those locations would cause more disturbance and sediment than leaving them in place. Renovating and using those roads with the design features implemented to ensure that drainage systems function properly (EA 2.2.1) and to prevent generating large amounts of sediment that could enter streams (EA 2.2.3 section 2) would prevent long term degradation of water quality (EA 3.2.2) or aquatic habitat (EA 3.2.3). To replace existing roads with new roads outside of the Riparian Reserves would add significantly to the existing road network, increasing rather than decreasing the net effects of roads in the area and doing so at a high cost. Replacement of existing roads in Riparian Reserves does not meet the objectives of an efficient and environmentally sound road system described in the Purpose and Need (EA 1.2).

Thinning

Comment 14: "Thinning should focus on the smallest trees.....The EA should have had another alternative that considered deferring harvest of the older stands.....use a variable density thinning prescription in all young stand thinning projects regardless of land allocation....The EA should have had a better discussion of the anticipated impacts and benefits of thinning on the different age classes of trees in the different harvest units." (Oregon Wild 2007 pg 3,4,5)

Response 14: The proposed action is to thin stands ranging in age from 45-75 years old, removing suppressed, co-dominant overstory trees at a stocking level designed to provide for the optimum growth, healthy stand structure and habitat requirements. Generally, the largest trees would be left in place.

Thinning prescriptions with clumps and gaps that introduce additional variability and structural complexity would be applied to stands in the Riparian Reserves. (EA 2.2) This combination meets the purpose and need criterion better than just variable density thinning alone.

Comment 15: "What does "thinning from below mean?" Why would dominant trees at all be removed?" (K.S. 2007 pg 2)

Response 15: "Thinning from below" refers to removing the suppressed (generally the smallest), co-dominant ("average" size group), and occasional dominant (largest trees of the same age) tree to increase the resources available for the dominant trees. Dominant trees are occasionally removed when multiple trees are tightly bunched together, removing one or more reduces competition for nutrients and sunlight among the remaining dominant trees, allowing the remaining trees to grow larger and more vigorous.

Comment 16: "All residual old growth trees in the McDowell Creek area should be retained." (K.S. 2007 pg 4)

Response 16: This is part of the proposal. Old growth trees and large snags (>15" DBH) would be protected as much as possible within legal safety requirements (EA 2.2.3 section 3). In the McDowell Creek Thinning, none of the residual old growth trees or snags are in locations likely to cause safety hazards that would require damaging those trees and snags (observations made during additional field work).

Comment 17: "It appears that some of the stands to be thinned in Section 27 are 76-95 years old. Why is this not mentioned in the text?" (K.S. 2007 pg 2)

Response 17: Table 17 in the EA shows three age classes in section 27, including 60 (51-60), 70 (61-70) and 80 (71-80) years of age. The age class categories shown on Map 2 are very coarse mapping, while the ages listed in Table 17 of the EA are based on data from stand exams. No stands older than 80 years are proposed for treatment.

Thinning in Riparian Reserves

Comment 18: "Some fear thinning will increase the risk of premature mass movement... Others think the increase of slides from partial removal is minimal.... Please discuss this question in the NEPA analysis." (Oregon Wild 2007 pg 5)

Response 18: EA Section 3.2.2 states that tree removal, and road renovation and construction will not occur on steep unstable slopes where the potential for mass wasting adjacent to stream reaches is high.

Thinning near or adjacent to perennial streams is not expected to have adverse effects on the water quality and aquatic habitat within those streams. All perennial streams have Stream Protection Zones (SPZ) of a minimum of 60' width, generally wider, to ecological or slope breaks where the potential for mass wasting adjacent to stream reaches is greatest. See EA section 2.2.3

Comment 19: the proposed Riparian Reserve thinning is unusual in that it involves a large acreage and removes a large number of fairly large trees....The agency needs to make the case that the proposed project is not unique of unusual is these respects, and that the environmental effects of these projects were not significant." (K.S. 2007 pg 1)

Response 19: The stand structure (crowding leading to unhealthy stand conditions) is the same in both the GFMA and Riparian Reserve portions of the treatment area. The treatments are similar in many respects (see Response 24 for description of the differences), and the methods of accomplishing those treatments are the same. The primary difference is in the objectives for managing these two Land Use Allocations: GFMA is managed primarily for timber production while Riparian Reserve is managed primarily for habitat (including upland, riparian and aquatic) and water quality, as described in the ACS Objectives. Riparian habitat is protected by the Stream Protection Zones that protect the primary shade zone and riparian vegetation and other features (EA 2.2.3 section 2) and by logging design features that protect against soil movement, erosion and sediment, as described in the same section. As described in Comment and Response 20, below, the BLM has extensive experience in thinning across the landscape with positive stand response and without significant negative environmental effects.

Comment 20: "The amount of ground-based logging in the McDowell Creek Project Area also concerns me. How much of 480 acres is in the Riparian Reserves?"

Response 20: Table 3 in the EA shows that 220 of the 480 acres are in the Riparian Reserves. Salem District has extensive experience conducting thinnings in the Riparian Reserve and is familiar with the impacts. EA p. 29 has fully addressed the impacts. The project area contains no special habitats. Special status species that are protected as recommended in specialist reports. The number of acres being treated does not make this project unusual or unique.

Comment 21: "...this project will create even more of a scarcity of LWD in the Riparian Reserves by removing all the trees which are logged. The larger trees logged should be retained on site to correct this deficit now.....I disapprove of aspects of the thinning project that would remove these trees from Riparian Reserve areas." (K.S. 2007 pr 2,4,5,6)

Response 21: All existing Coarse Woody Debris (CWD) (LWD, or Large Woody Debris, is used in association with stream channels in BLM reports, CWD is used for terrestrial habitat) is to be left on site and disturbed as little as possible (less than 10 percent impacted) (EA 2.2.3 section 3). Since thinning is from below, relatively few of the trees that are large enough to be effective CWD would be removed.

Comment 22: "To what degree will skyline yarding operations be used in Riparian Reserves, as opposed to ground based logging?" (K.S. 2007 pg 3)

Response 22: Skyline yarding is most effective on steeper slopes where ground based logging is less effective, and since much of the steeper ground within the project area is in or adjacent to Riparian Reserves, most of the approximately 50 acres of skyline yarding will be in the Riparian Reserve. The remainder of the area is planned for ground based logging. (EA Table 3 lists 100 acres of skyline logging, based on a larger potential project area at that time.)

Comment 23: "...a minimum of 50 percent canopy closure in the Riparian Reserve is not enough. (K.S. 2007 pg 3,4 & 5)

Response 23: The author provides no basis in claiming 50% is not enough. Stream temperatures would not be affected by the proposed actions because the 60' minimum stream protection zones (SPZ's) on perennial streams would prevent any decrease in shade.

To ensure that any harvesting adjacent to perennial streams would not increase summer temperature maximums, the BLM has agreed to follow the *Northwest Forest Plan Temperature TMDL Implementation Strategies* (US Forest Service and the Bureau of Land Management, 2005): no shade producing vegetation within the “primary shade zone” (estimated to be no more than 60’ from the active stream channel in all cases) of perennial streams would be cut or removed. Canopy closure in the secondary shade zone would be reduced to no less than 50%. (2007 McDowell Creek Hydrology/Channels/Water Quality Report pg 6). EA section 3.2.2.1

Comment 24: “It makes no difference if Riparian Reserve boundaries are established if the proposed action is similar within and outside the boundaries.” (K.S. 2007 pg 7)

Response 24: In the Riparian Reserve, greater variability in thinning densities (compared to adjacent Matrix stands) would add a greater degree of horizontal complexity to these stands and acquire vegetation characteristics needed to attain ACS objectives (EA 3.2.5.1). This variability is accomplished by: boundary locations that exclude areas that are developing complexity without treatment; creating gaps of ¼ to 1 acre with very low density retention (12-20 trees/acre); leaving untreated clumps of ¼ to 1 acre (see DR Table 3, p. 19 for summary of clumps and gaps); and marking guidelines designed to leave minimum 50 percent canopy closure compared to 40 percent minimum in Matrix.

Forest Stand Characteristics

Comment 25: “Is the laminated root rot distinct from that which affects Port Orford Cedar?” (K.S. 2007 pg 4)

Response 25: Yes, laminated root rot is distinct from the root rot affecting Port Orford cedar. Laminated root rot, *Phellinus weirri*, has a wide host range including Douglas-Fir, Pacific silver, white, grand fir and others. Port Orford Cedar Root rot, *Phytophthora lateralis*’s only host is Port Orford Cedars.

Comment 26: “Does “future entries” apply to both Matrix and Riparian Reserves?” (K.S. 2007 pg 4)

Response 26: Culmination of mean annual increment is projected to be at some time roughly around stand age 80 to 90. Matrix stands would be assessed for a final harvest in approximately 20 years following thinning. Subsequent entries in the Riparian Reserve would be assessed to determine progress towards meeting ACS objectives. Assessments in the Riparian Reserve would generally be done concurrently with assessments in the adjoining Matrix LUA. The proposed treatments in Riparian Reserves are designed to meet or exceed ACS objectives. (McDowell Creek Silvicultural Prescriptions – 2007 Timber Sale Thinnings)

Recreation, Visual Resource and Rural Interface

Comment 27: “How close is the project to McDowell Creek Park – more specifically the 1.7 mile hike that includes Royal Terrace Falls, Majestic Falls, and Crystal Pool> Is the Haul Route through the park?” (K.S. 2007 pg 7).

Response 28: The project is approximately 2 air miles from McDowell Creek Park and the 1.7 mile hike within it. There may be week-day disturbance to McDowell Creek Park associated with hauling on the existing road that pre-dates the park, a primary haul route for all landowners in the area.

This road system joins the County road near the entrance to the lower parking area for McDowell Creek Park. Hauling would not occur during summer season weekends and holidays when public use levels are higher.

Hydrology

Comment 28: "The hydrologic function section needs to be more specific to this project and more detailed. How wide will the Stream Protection Zone be for project area streams?" (K.S. 2007 pg 3).

Response 28: The Stream Protection Zone would extend to topographic or ecological breaks with a minimum of sixty feet on each side for the channel for perennial streams and twenty five feet on each side for intermittent streams (EA section 2.2.3). The commenter provides no rationale or specific concerns for requesting additional specifics in the hydrologic function section.

Fisheries

Comment 29: "I favor removal of the log fill crossing in section 25, I am not satisfied with the effects analysis.... How far down stream would turbidity from the project potentially impact cutthroat trout? Which unit is the location of the log fill crossing to be removed?" (K.S. 2007 pg 5)

Response 29: Commenter did not identify any short comings in the effects analysis for BLM to assess. Increased turbidity is unlikely to be visible or measurable beyond 800 meters below the site of the disturbance (see Foltz and Yanosek, 2005). (2007 McDowell Creek Hydrology/Channels/Water Quality report pg 2). This log fill is between EA units 25D and 25B (Timber Sale Units 8 and 10).

Bureau Sensitive Species

Comment 30: ".....this article states past and current timber harvests have led to a larger NSO decline than was expected." (Bark 2007 pg 8)

Comment 31: "Logging disrupts behavior of nesting birds and could harm other aspects of their life needs." (Oregon Wild 2007 pg 3)

Comment 32: "This project should not occur during the NSO nesting period." (K.S. 2007 pg 6)

Response 30, 31 & 32: Spotted Owl surveys have not determined the presence of nesting spotted owls in the project area for the past five years. No known spotted owls would be affected by thinning or connected actions. In the short term, disturbance associated with thinning (logging, road-building, etc.) may have temporary effects on the presence of movement of spotted owls. However since thinning would maintain dispersal habitat, the ability of the habitat to accommodate movement of birds after thinning is completed would be maintained. Seasonal restrictions on habitat modification activities (felling, yarding, and road building) would minimize the risk of disturbance to any unknown northern spotted owls during the critical nesting season.

In the short term, approximately 100 acres of dispersal habitat would be degraded as a result of thinning, but no habitat would be downgraded to a lower classification. "Degrade" habitat means to affect the quality of spotted owl dispersal or suitable habitat without altering the functionality of (or downgrading) such habitat.

Thinning treatments in these dense, uniform stands are expected to have long-term benefits to spotted owls by encouraging late-successional characteristics to develop at least ten years more rapidly than they would be expected to develop without treatment. (EA section 3.2.5.1)

Comment 33: "What will the size buffer around the host tree for Pseudocyphellaria mollota?" (K.S. 2007 pg 4)

Response 33: The tree itself would be reserved from cutting to protect the lichen on its branches. Due to the tree's location next to the road, no buffer is practical or needed. (Cascade Resource Area Botanical Report – 2007, EA p. 6)

Comment 34: The project sites do contain marginal habitat for Red Tree Voles, so survey should proceed thinning work, even if not required." (K.S. 2007 pg 6)

Response 34: Though the project area is within the Northern mesic zone of the Red Tree Vole range, none of the stands that would be thinned meet the stand-level criteria as described above. In addition, the project area falls under an exemption issues in the October 11th, 2006, modification injunction in Northwest Ecosystem Alliance et al. v. Rey et al., which makes an exemption for thinning projects in stands under 80 years of age. (2007 Timber Sale Thinning – Wildlife Report p. 9).

Fire

Comment 35: "Logging this area will result in drier conditions, and increase the levels of slash,... What can be expected to happen if fire should come through this area within the next few years." (Bark 2007 pg 6)

Comment 36: "Given that most forest fires are human started on or near roads it seems unwise to create drier conditions with increased levels of highly flammable fuel loads in the area." (Bark 2007 pg 7)

Response: 35 & 36: EA section 3.2.6. states: The most common source of fire starts in the Cascades Resource Area is lightning, followed by human caused fires. In the Wildland/Urban Interface (WUI) and along roads open to public access, the potential for a human caused start are highest, along with the potential costs. The proposed thinning projects range from stands located along open roads and within WUI to areas behind locked gates. The current strategy to reduce the risk of a human ignition is to reduce fuels in accessible areas and/or decrease access during periods of high risk. The current strategy to reduce the risk of a fire start (both natural and human caused) from becoming a large fire is aggressive initial attack through a contract with the Oregon Department of Forestry and their fire protection resources. Existing forest roads in these areas provide access for fire control.

The primary purpose of a fuel treatment is not to stop fires, but to change the behavior of a fire entering a fuel-altered zone, thus lessening the impact of that fire to an area of concern. This change in fire behavior is often quantified as a reduction in flame length, intensity, or rate-of-spread, and manifested as a change in severity or growth of the fire.

This is best achieved by fragmenting the fuel complex and repeatedly disrupting or locally blocking fire growth, thus increasing the likelihood that suppression will be effective or weather conditions will change. (Stratton, 2004)

Comment 37: "The EA shows results of "Modeling Predictions of Fire Regimes for the Project Areas." There is no discussion of the basis for these predictions. What does this prediction include for consideration?" (Bark 2007 pg 6)

Response 37: Fire regime modeling takes into account the past fire history, fire return intervals, fire intensity, present condition and potential for human caused fires in that area. The forest stands in the proposed project areas have not experienced fires for many decades. In the McDowell Creek project area the natural fire return interval has already been exceeded. The combination of existing dead fuels and stand conditions (especially crown density) in these stands could sustain surface and crown fires. In 2006, large (>700 acres) lightning caused fires occurred within 10 air miles of the project area and smaller fires started by lightning and people were controlled by initial attack. EA 3.2.6.

Comment 38: "The table states that fuel treatments for these units will include burning. Elsewhere, the text says there will be no burning in Riparian Reserves, so as to contribute CWD to the riparian environment. Please clarify....will all the burning in these units occur outside the Riparian Reserves? If so, how wide are the buffers in these units?" (K.S. 2007 pg 3)

Response 38: Each unit proposed for fuel treatment does contain a portion of Riparian Reserves within it. Burning for these units will occur in the portions not designated as Riparian Reserve. Riparian Reserve widths are approximately 200 feet in the affected areas (180-220 feet). Burning is limited to burning piles during the wet time of year (EA pp. 22, 24, 43, 55).

Comment 39: "what are 1000 hour fuels? Stand density is 70 what? For what size area? Fuels treatment would reduce the relative density to 45-55 what? (K.S. 2007 pg 6)

Response 39: 1000-hour fuels is a term to physically characterize fuel size. A 1000 hour fuel is generally 3-8 inches in diameter that takes approximately 1000 hours to dry out after the dry season begins. Stand density is at 70% and relative density after fuel treatment would be 45- 55% for the unit areas observed. Relative density is a measure of tree crowding compared to a reference level such as normal density. These stands are currently at 70% and optimum conditions for reducing the likelihood of crown fires in Douglas fir is a relative stand density of less than 45-55% which this thinning accomplishes.